**PERK/EIF2AK3 Polyclonal ANTIBODY**

**Catalog Number:** 24390-1-AP

### Basic Information

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>GenBank Accession Number</th>
<th>Recommended Dilutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>24390-1-AP</td>
<td>BC130654</td>
<td>WB 1:200-1:1000</td>
</tr>
<tr>
<td></td>
<td>GenetID (NCBI): 9451</td>
<td>IHC 1:20-1:200</td>
</tr>
<tr>
<td></td>
<td>Full Name: eukaryotic translation initiation factor 2-alpha kinase 3</td>
<td>IF 1:20-1:200</td>
</tr>
</tbody>
</table>

**Size:** 50 μg/150 μl  
**Source:** Rabbit  
**Isotype:** IgG  
**Purification Method:** Antigen affinity purification  
**Immunogen Catalog Number:** AG18254

### GenBank Accession Number

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**Calculated MW:** 1116aa, 125 kDa  
**Observed MW:** 125 kDa, 140 kDa

### Applications

**Tested Applications:** IF, IHC, WB, ELISA  
**Cited Applications:** WB  
**Species Specificity:** human  
**Cited Species:** human, rat

### Background Information

PERK is also named as PEK, EIF2AK3 (Eukaryotic translation initiation factor 2-alpha kinase 3) and belongs to the GCN2 subfamily. It acts potentially as a metabolic sensor in the insulin-secreting beta-cells to modulate the trafficking and quality control of proinsulin in the ER relative to the physiological demands for circulating insulin (PMID: 20530744). PERK and EIF2AK4 also have a functional role in regulating translation under non-stressed conditions, apart from their long-established roles as stress kinases (PMID: 21638082). The full length protein has a signal peptide and a glycosylation site.

### Notable Publications

<table>
<thead>
<tr>
<th>Author</th>
<th>Pubmed ID</th>
<th>Journal</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun Shao</td>
<td>28950253</td>
<td>Cell Physiol Biochem</td>
<td>WB</td>
</tr>
<tr>
<td>Chong Liu</td>
<td>30201260</td>
<td>Brain Res</td>
<td>WB</td>
</tr>
<tr>
<td>Demei Xu</td>
<td>25950987</td>
<td>Chem Res. Toxicol</td>
<td>WB</td>
</tr>
</tbody>
</table>

### Storage

**Storage:** Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:** PBS with 0.1% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

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For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (toll free in USA), or (312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com
Selected Validation Data

Immunohistochemistry of paraffin-embedded human pancreas slide using 24390-1-AP PERK antibody at dilution of 1:50

Immunohistochemistry of paraffin-embedded human pancreas slide using 24390-1-AP PERK antibody at dilution of 1:50

HepG2 cells were subjected to SDS PAGE followed by western blot with 24390-1-AP PERK antibody at dilution of 1:300 incubated at room temperature for 1.5 hours

Immunofluorescent analysis of HepG2 cells using 24390-1-AP PERK antibody at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L)

Gel Anti-Rabbit IgG (H+L)